REMARKS / ARGUMENTS

This application is believed to be in condition for allowance because the claims are non-obvious and patentable over the cited references. The following paragraphs provide the justification for this belief. In view of the following reasoning for allowance, the Applicant hereby respectfully requests further examination and reconsideration of the subject patent application.

1.0 Objection to the Specification:

The Office Action dated October 3, 2007 objected to the specification as failing to include support for the term "full rank" as cited in various claims. In particular, the Office Action states that "examiner can not find the term full rank in the specification and is unsure of the meaning associated with the term. What makes them full?"

Applicants respectfully traverse the objection to the specification with respect to the usage of the term "full rank." Specifically, the term "full rank" is a term that is well known to those skilled in the art of conventional linear algebra with respect to the use and evaluation of matrices. Further, as noted in the Applicants prior response dated August 24, 2007, the concept of full rank is typically addressed in most basic linear algebra text books.

In reply, the present Office Action stated that the "examiner requires evidence that it was well known in the art. The examiner suggests an information disclosure statement prior to the filing of the application that defines full rank to include the definitions given be the applicant in the arguments or an affidavit that confirms applicant's definition. As it is, the specification mentions rank but not full rank and it remains unclear."

Applicants respectfully suggest that neither an information disclosure statement nor an affidavit is required by the rules to disclose ***common definitions that are widely known to those skilled in the art***. For example, 37 CFR § 1.56 specifically describes the

"duty to disclose information material to patentability." In particular, 37 CFR § 1.56 recites the following:

> "(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes ***a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section***..." (emphasis added)

The term "***material to patentability***" is further defined by 37 CFR § 1.56 as follows:

> "(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
>
> (1) ***It establishes, by itself or in combination with other information, a prima facie case of unpatentability*** of a claim; or
>
> (2) ***It refutes, or is inconsistent with, a position the applicant takes*** in:
>
> (i) Opposing an argument of unpatentability relied on by the Office, or
>
> (ii) Asserting an argument of patentability." (emphasis added)

Further, MPEP §2001.05 specifically discusses the issue of materiality as follows:

> "Under the rule, ***information is not material unless it comes within the definition of 37 CFR 1.56(b)(1) or (2). If information is not material, there is no duty to disclose the information to the Office***. Thus, it is

> theoretically possible for applicants to draft claims and a specification to avoid a prima facie case of obviousness over a reference and then to be able to withhold the reference from the examiner. The Office believes that most applicants will wish to submit the information, however, even though they may not be required to do so, to strengthen the patent and avoid the risks of an incorrect judgment on their part on materiality or that it may be held that there was an intent to deceive the Office."

Therefore, since the common and well known definition of the term "full rank" is ***well known to those skilled in the art of basic linear algebra***, and since the term "full rank" is ***not material to patentability***, there is no duty to disclose any references which teach basic linear algebra. However, in order to address the concerns raised by the Office Action, the Applicants have attached excerpts from two basic linear and matrix algebra textbooks in the attached Evidentiary Appendix so that the conventional concept of "full rank" may be better understood.

For example, the term "full rank" is clearly described in the attached copy of Section 2.1.5, pages 59-60, of the commonly available textbook entitled "Numerical Linear Algebra for Applications in Statistics," by James E. Gentle, New York: Springer-Verlag, 1998, as follows:

> "We use the notation "rank(A)" to denote the rank of the matrix A. **If the rank of a matrix is the same as its smaller dimension, we say the matrix is of *full rank***. In this case we may say the matrix is of full row rank or full column rank." (emphasis added)

Similarly, the term "full rank" is also clearly described in the attached copy of Section 4.3, page 245, of the commonly available textbook entitled "Jacobians of Matrix Transformations and Functions of Matrix Argument," by A. M. Mathai, River Edge, NJ: World Scientific Publishing, 1996, as follows:

"Consider the simple case of $r = p$, that is, the matrix $\tilde{X}$ is of full rank p."

In the above quoted sentence from the reference entitled "Jacobians of Matrix Transformations and Functions of Matrix Argument," r represents the rank of the matrix, $\tilde{X}$, which has dimensions of $n \times p$ where $n \geq p$. Clearly, this definition is fully consistent with the definition provided in the above-quoted reference entitled "Numerical Linear Algebra for Applications in Statistics."

Therefore, in view of the above cited well known and commonly accepted definitions of the term "full rank," Applicants will again explain the term full rank. In particular, as is well known to those skilled in the art of conventional linear algebra, the rank of an arbitrary $m \times n$ matrix is at most the lesser of m and n. An $m \times n$ matrix that has as large a rank as possible is said to have ***full rank***. In other words, in an arbitrary $m \times n$ matrix, the rank r is ***full rank*** where the rank r is equal to the lesser of m and n. Further, the use of matrix ***rank*** with respect to the claimed invention is discussed in detail in paragraphs [0095] through [0110] of the specification (see US Patent Application Publication 2005/0010675).

Clearly, the concept of "full rank" is well known to those skilled in the art of linear algebra as simply denoting the largest possible rank for an arbitrary $m \times n$ matrix. Further Applicants describe rank computation and evaluation of matrices in paragraphs [0095] through [0110] of the specification. Therefore, Applicants respectfully suggest that the use of the term "full rank" in the claims is fully supported by the use of the term "rank" throughout the specification and by the use of the term "full rank" as a ***common term of art in the field of linear algebra***. In addition, it should also be noted that ***material in the claims is legally considered to be a part of the disclosure of the claimed invention***. As such, Applicants respectfully traverse the objection to the specification and respectfully request withdrawal of the objection to the specification.

2.0 Rejections under 35 U.S.C. §112:

The Office Action rejected claims 9 and 18 under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. In particular, the Office Action objected to the use of the term "full rank" in the claims and suggested that the term was not used in the specification. However, as discussed above in Section 1.0, the rank of an $m \times n$ matrix is at most the lesser of m and n. An $m \times n$ matrix that has as large a rank as possible is said to have ***full rank***.

Since Applicants discuss rank evaluation of matrices in paragraphs [0095] through [0110] of the specification, the usage of a conventional linear algebra term such as "full rank" is fully supported by both the specification as originally drafted, and the common usage of the term "full rank" in the field of linear algebra and matrix mathematics. Therefore, Applicants respectfully traverse the rejection of claims 9 and 18 under 35 U.S.C. §112, first paragraph, and respectfully request withdrawal of the rejection of claims 9 and 18.

3.0 Rejections under 35 U.S.C. §102:

In the Office Action of May 24, 2007, claims 7-9 and 16-18 were rejected under 35 U.S.C. §102(e) as being anticipated by "network Information Flow", IEEE Transactions on Information Theory by R. Ahlswede, et al., hereinafter "***Ahlswede***."

A rejection under 35 U.S.C. §102(e) requires that the Applicant's invention was described in patent granted on an application for patent by another filed in the United States before the invention thereof by the Applicant. To establish that a patent describes the Applicant's invention, *all of the claimed elements of an Applicant's invention must be considered, especially where they are missing from the prior art*. If a claimed element is not taught in the referenced patent, then a rejection under 35 U.S.C. §102(e) is not proper, as the Applicants' invention can be shown to be patentably distinct from the cited reference.

In view of the following discussion, the Applicants will show that one or more elements of the Applicants' claimed invention are missing from the cited art, and that the Applicants' invention is therefore patentable over that cited art.

3.1 Rejection of Claims 7-9:

In general, the Office Action rejected independent claim 7 under 35 U.S.C. §102(e) based on the rationale that the ***Ahlswede*** reference teaches the Applicant's claimed "…system for computing a network code…"

One important issue in the rejection of independent claim 7 is the definition of the term "representation vectors" as specifically defined by the Applicants. Specifically, as clearly explained in MPEP §2111.01 "***the words of a claim must be given their "plain meaning" unless they are defined in the specification***" (emphasis added).

In particular, MPEP §2111.01 explains the following:

> "While the meaning of claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. ***During examination, the claims must be interpreted as broadly as their terms reasonably allow. This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification***. *In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322* (Fed. Cir. 1989)…"

Further, also as discussed in MPEP §2111.01, the "***Applicant may be his or her own lexicographer***…" (emphasis added). In particular, MPEP §2111.01 explains the following:

> "Applicant may be his or her own lexicographer as long as the meaning assigned to the term is not repugnant to the term's well known usage. In re Hill, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). ***Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention***." Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998)."

As explained in the Applicants' prior response, the term "representation vectors" is specifically defined in the specification. ***Further, Applicants do not believe that the term "representation vector" is a term of common usage in the art of network coding***. As previously explained by the Applicants, the "representation vector" claimed by Applicants in both claim 7 and 16 is ***specifically defined*** in paragraphs [0063] to [0065] of the specification. These paragraphs explain that each edge is associated with an *R*-length "representation vector" that shows how the symbol on a particular edge "is represented in terms of the original source symbols." (See Equations 1-3 and associated discussion in paragraphs [0063] to [0065]).

Therefore, the assertion in the Office Action that "limitations from the specification are not read into the claims…" is incorrect and is unsupported by the *In re Van Geuns* case that is cited by the Office Action. In particular, MPEP §2145 VI specifically discusses the issue of arguing limitations which are not claimed as follows:

> "Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) (Claims to a superconducting magnet which generates a "uniform magnetic field" were not limited to the degree of magnetic field uniformity required for Nuclear Magnetic Resonance (NMR) imaging. Although the specification disclosed that the claimed magnet may be used in an NMR apparatus, the claims were not so limited.);

> *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571-72, 7 USPQ2d 1057, 1064-1065 (Fed. Cir.), *cert. denied*, 488 U.S. 892 (1988) (Various limitations on which appellant relied were not stated in the claims; ***the specification did not provide evidence indicating these limitations must be read into the claims to give meaning to the disputed terms***.); *Ex parte McCullough*, 7 USPQ2d 1889, 1891 (Bd. Pat. App. & Inter. 1987)..." (emphasis added)

Clearly, in the present case, since the term "representation vector" is specifically defined, the specification ***does provide evidence*** indicating that specific limitations must be read into the claims to give meaning to the disputed term "representation vector" in accordance with the holding in *Ex parte McCullough*, 7 USPQ2d 1889, 1891 (Bd. Pat. App. & Inter. 1987). As such, this explicit definition of the term "representation vector" must be considered in interpreting the limitations of claim 7.

As such, Applicants respectfully suggest that the claimed "representation vector" must be interpreted as a "representation vector" that shows how the symbol on a particular edge "is represented in terms of the original source symbols" as explicitly defined in the specification. Clearly, this definition is wholly inconsistent with the arguments advanced by the Office Action with respect to the ***Ahlswede*** reference.

In particular, the Office Action suggests that the claimed limitation of "computing representation vectors..." is disclosed by the ***Ahlswede*** reference. Specifically, the Office Action offers page 1204 of the ***Ahlswede*** reference and suggests "R is the vector; the symbols are the length of the bits sent."

However, in stark contrast to the position advanced by the Office Action, Applicants respectfully suggest that the claimed "representation vectors" are not disclosed by the "vector R" described on page 1204 of the ***Ahlswede*** reference. For example, the ***Ahlswede*** reference describes the "vector R" as simply the "coding rate" for a particular edge of the multicast network.

In contrast, the "representation vector" claimed by Applicants is specifically defined in paragraphs [0063] to [0065] of the specification. These paragraphs explain that each edge is associated with an *R*-length "representation vector" that shows how the symbol on a particular edge "is represented in terms of the original source symbols." (See Equations 1-3 and associated discussion in paragraphs [0063] to [0065]). Clearly, the "representation vector" ***defined*** and claimed by the Applicants is not the "coding rate" for a particular edge of the multicast network as disclosed and claimed by the ***Ahlswede*** reference. In other words, the Office Action is improperly equating the claimed "representation vectors" with the "coding rate" of the ***Ahlswede*** reference.

Further, it must also be noted that the interpretation offered by the Office Action with respect to the claimed limitation regarding "representation vectors" is inconsistent with the usage of that term in the claim. In particular, claim 7 recites the following language:

> "***computing representation vectors for symbols*** exiting each interior network node ***from representation vectors for symbols*** entering each node and the linear combination coefficients" (emphasis added)

Clearly, Applicants are claiming a computation of "representation vectors" based on ***symbols*** entering each node and linear combination coefficients that have been computed for each node. As is well known to those skilled in the art, each "***symbol***" transmitted across a network node is represented by a block of bits that correspond to a particular element of some code or alphabet. In other words, as admitted by the Office Action on page 4, "symbols are just the data…" Thus, the claimed "representation vectors" clearly do not represent a coding rate since they are computed "for symbols exiting each interior network node from representation vectors for symbols entering each node and the linear combination coefficients."

As such, the coding rate "R" described by the ***Ahlswede*** reference clearly fails to teach the claimed "representation vectors." In fact, even if, for the sake of argument, the claimed "representation vectors" did represent a coding rate as described by the ***Ahlswede*** reference,

it should also be clear that the ***Ahlswede*** reference fails completely to describe any method wherein such information is computed "for symbols exiting each interior network node from representation vectors for symbols entering each node ***and the linear combination coefficients***."

Since the Applicants are entitled to be their "own lexicographer" as specifically described and supported by both case law and the MPEP, it is clear that the Office Action has not presented a valid argument that shows a teaching of the claimed invention by the ***Ahlswede*** reference. Further, the claimed limitations are inconsistent with the interpretation advanced by the Office Action since the Office Action fails to address the specifically claimed limitations with regard to how the claimed "representation vectors" are computed.

Therefore, in view of the preceding discussion, it is clear that the present invention, as claimed by independent claim 7 has elements not disclosed in the ***Ahlswede*** reference. Consequently, the rejection of claim 7 under 35 U.S.C. §102(e) is not proper. Therefore, the Applicants respectfully traverse the rejection of independent claim 7 and dependent claims 8-9 under 35 U.S.C. §102(e) in view of the language of claim 7. In particular, claim 7 recites the following novel language:

> "A system for computing a network code, comprising:
>
> computing linear combination coefficients for each of at least one interior network node of a network, said nodes including a sender;
>
> ***computing representation vectors for symbols exiting each interior network node from representation vectors for symbols entering each node and the linear combination coefficients***; and
>
> computing decoding matrices for each of at least one receiver of the network from the representation vectors for the symbols entering each receiver; and
>
> constructing a network code from the combination coefficients, the representation vectors and the decoding matrices." (emphasis added)

3.2 Rejection of Claims 16-18:

In general, the Office Action rejected independent claim 16 under 35 U.S.C. §102(e) based on the rationale that the ***Ahlswede*** reference teaches the Applicant's claimed "…computer-implemented process… for computing a network code…" Specifically, the Office Action stated that "Claims 16-19 are substantially similar in scope and claim limitations and are rejected for the same reasons as set forth above.

One important issue in the rejection of independent claim 16 is the definition of the term "representation vectors" as specifically defined by the Applicants. Specifically, as clearly explained in MPEP §2111.01 "***the words of a claim must be given their "plain meaning" unless they are defined in the specification***" (emphasis added).

In particular, MPEP §2111.01 explains the following:

> "While the meaning of claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. ***During examination, the claims must be interpreted as broadly as their terms reasonably allow. This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification***. *In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322* (Fed. Cir. 1989)…"

Further, also as discussed in MPEP §2111.01, the "***Applicant may be his or her own lexicographer***…" (emphasis added). In particular, MPEP §2111.01 explains the following:

> "Applicant may be his or her own lexicographer as long as the meaning assigned to the term is not repugnant to the term's well known usage. In re Hill, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). ***Any special meaning***

> ***assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention***." Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998)."

As explained in the Applicants' prior response, the term "representation vectors" is specifically defined in the specification. ***Further, Applicants do not believe that the term "representation vector" is a term of common usage in the art of network coding***. As previously explained by the Applicants, the "representation vector" claimed by Applicants in both claim 7 and 16 is ***specifically defined*** in paragraphs [0063] to [0065] of the specification. These paragraphs explain that each edge is associated with an *R*-length "representation vector" that shows how the symbol on a particular edge "is represented in terms of the original source symbols." (See Equations 1-3 and associated discussion in paragraphs [0063] to [0065]).

Therefore, the assertion in the Office Action that "limitations from the specification are not read into the claims…" is incorrect and is unsupported by the *In re Van Geuns* case that is cited by the Office Action. In particular, MPEP §2145 VI specifically discusses the issue of arguing limitations which are not claimed as follows:

> "Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) (Claims to a superconducting magnet which generates a "uniform magnetic field" were not limited to the degree of magnetic field uniformity required for Nuclear Magnetic Resonance (NMR) imaging. Although the specification disclosed that the claimed magnet may be used in an NMR apparatus, the claims were not so limited.); *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571-72, 7 USPQ2d 1057, 1064-1065 (Fed. Cir.), *cert. denied*, 488 U.S. 892 (1988) (Various limitations on which appellant relied were not stated in the claims;

> ***the specification did not provide evidence indicating these limitations must be read into the claims to give meaning to the disputed terms***.); *Ex parte McCullough*, 7 USPQ2d 1889, 1891 (Bd. Pat. App. & Inter. 1987)..." (emphasis added)

Clearly, in the present case, since the term "representation vector" is specifically defined, the specification ***does provide evidence*** indicating that specific limitations must be read into the claims to give meaning to the disputed term "representation vector" in accordance with the holding in *Ex parte McCullough*, 7 USPQ2d 1889, 1891 (Bd. Pat. App. & Inter. 1987). As such, this explicit definition of the term "representation vector" must be considered in interpreting the limitations of claim 16.

As such, Applicants respectfully suggest that the claimed "representation vector" must be interpreted as a "representation vector" that shows how the symbol on a particular edge "is represented in terms of the original source symbols" as explicitly defined in the specification. Clearly, this definition is wholly inconsistent with the arguments advanced by the Office Action with respect to the ***Ahlswede*** reference.

In particular, the Office Action suggests that the claimed limitation of "computing representation vectors..." is disclosed by the ***Ahlswede*** reference. Specifically, the Office Action offers page 1204 of the ***Ahlswede*** reference and suggests "R is the vector; the symbols are the length of the bits sent."

However, in stark contrast to the position advanced by the Office Action, Applicants respectfully suggest that the claimed "representation vectors" are not disclosed by the "vector R" described on page 1204 of the ***Ahlswede*** reference. For example, the ***Ahlswede*** reference describes the "vector R" as simply the "coding rate" for a particular edge of the multicast network.

In contrast, the "representation vector" claimed by Applicants is specifically defined in paragraphs [0063] to [0065] of the specification. These paragraphs explain that each edge is

associated with an *R*-length "representation vector" that shows how the symbol on a particular edge "is represented in terms of the original source symbols." (See Equations 1-3 and associated discussion in paragraphs [0063] to [0065]). Clearly, the "representation vector" ***defined*** and claimed by the Applicants is not the "coding rate" for a particular edge of the multicast network as disclosed and claimed by the ***Ahlswede*** reference. In other words, the Office Action is improperly equating the claimed "representation vectors" with the "coding rate" of the ***Ahlswede*** reference.

Further, it must also be noted that the interpretation offered by the Office Action with respect to the claimed limitation regarding "representation vectors" is inconsistent with the usage of that term in the claim. In particular, claim 16 recites the following language:

> "compute ***representation vectors*** for ***symbols*** exiting each interior network node from representation vectors for ***symbols*** entering each interior network node ***and the computed linear combination coefficients***" (emphasis added)

Clearly, Applicants are claiming a computation of "representation vectors" based on ***symbols*** entering each node and linear combination coefficients that have been computed for each node. As is well known to those skilled in the art, each "***symbol***" transmitted across a network node is represented by a block of bits that correspond to a particular element of some code or alphabet. In other words, as admitted by the Office Action on page 4, "symbols are just the data…" Thus, the claimed "representation vectors" clearly do not represent a coding rate since they are computed "for symbols exiting each interior network node from representation vectors for symbols entering each node and the linear combination coefficients."

As such, the coding rate "R" described by the ***Ahlswede*** reference clearly fails to teach the claimed "representation vectors." In fact, even if, for the sake of argument, the claimed "representation vectors" did represent a coding rate as described by the ***Ahlswede*** reference, it should also be clear that the ***Ahlswede*** reference fails completely to describe any method wherein such information is computed "for symbols exiting each interior network node from

representation vectors for symbols entering each node ***and the linear combination coefficients***."

Since the Applicants are entitled to be their "own lexicographer" as specifically described and supported by both case law and the MPEP, it is clear that the Office Action has not presented a valid argument that shows a teaching of the claimed invention by the ***Ahlswede*** reference. Further, the claimed limitations are inconsistent with the interpretation advanced by the Office Action since the Office Action fails to address the specifically claimed limitations with regard to how the claimed "representation vectors" are computed.

Therefore, in view of the preceding discussion, it is clear that the present invention, as claimed by independent claim 16 has elements not disclosed in the ***Ahlswede*** reference. Consequently, the rejection of claim 16 under 35 U.S.C. §102(e) is not proper. Therefore, the Applicants respectfully request reconsideration of the rejection of independent claim 16 and dependent claims 17-18 under 35 U.S.C. §102(e) in view of the language of claim 16. In particular, claim 16 recites the following novel language:

> "A computer-implemented process, including computer executable instructions stored on a physical computer-readable medium, for computing a network code for a network including at least one sender, a plurality of internal nodes and at least one receiver, comprising using a computing device to:
>
> compute linear combination coefficients for each interior network node and the at least one sender;
>
> ***compute representation vectors for symbols exiting each interior network node from representation vectors for symbols entering each interior network node and the computed linear combination coefficients***; and
>
> compute decoding matrices for each receiver from the representation vectors for the symbols entering each receiver." (emphasis added)

CONCLUSION

In view of the above, it is respectfully submitted that claims 7-9 and 16-18 are in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of claims 7-9 and 16-18 and to pass this application to issue. Additionally, in an effort to further the prosecution of the subject application, the Applicant kindly invites the Examiner to telephone the Applicant's attorney at (805) 278-8855 if the Examiner has any additional questions or concerns.

Respectfully submitted,

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EVIDENTIARY APPENDIX

The following pages include excerpts from two well known and readily available textbooks that describe the concept of "full rank" in view of conventional linear algebra matrix mathematics. As discussed above, since the material contained in these textbooks is not material to patentability, it is not required to present these materials in an Information Disclosure Statement as defined by 37 CFR § 1.56.

In particular, the following information is presented as evidence of the conventional use of the term "full rank" as predating the filing date of the present patent application:

1. Section 2.1.5, pages 59-60, of the commonly available textbook entitled "Numerical Linear Algebra for Applications in Statistics," by James E. Gentle, New York: Springer-Verlag, 1998.

2. Section 4.3, page 245, of the commonly available textbook entitled "Jacobians of Matrix Transformations and Functions of Matrix Argument," by A. M. Mathai, River Edge, NJ: World Scientific Publishing, 1996.